

# INDOOR COMFORT

MARCH 2013

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**NEWS**

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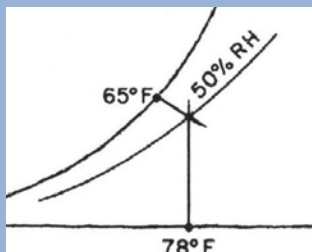
THE WEST'S LEADING MONTHLY NEWSMAGAZINE FOR THE AIR CONDITIONING, HEATING, REFRIGERATION, SHEET METAL AND VENTILATING INDUSTRIES



## Editorial Focus

What's new? What's improved? ICN takes a look at the latest in "Tools, Test Instruments and Controls."

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## Technical Training

Part 41 of Contributing Editor Jim Johnson's monthly "Growing Green Technicians" column focuses on psychrometric fundamentals.

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## Indoor People

ICN takes a look at all the movers and shakers in the HVAC/R/SM industry.

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## HVAC Contractor Ordered to Pay Nearly \$1M for Violating Labor Law

### Labor Commissioner Calls Infractions a "Classic Example of Wage Theft"

California Labor Commissioner Julie A. Su recently ordered Ace Cooling & Heating Corporation, a heating and air contractor, to pay \$824,570.63 in wages, \$23,685.12 in training fund contributions and \$114,300.00 in fines for failure to

pay 10 employees the proper wage for their work on the El Camino Community College Bookstore Modernization project in Torrance, Calif. The Labor Commissioner issued a civil wage and penalty assessment in an effort to collect the money owed to the

workers.

"Construction contractors should take notice that the Labor Commissioner has reinvigorated and focused her public works enforcement efforts to provide a fair and level playing field for construction businesses who comply

with public works laws," said DIR Director Christine Baker.

"In this case, sheet metal workers were paid between \$8.50 and \$16.00 per hour and were significantly underpaid on this project," Labor Commissioner Su stated. "This is a classic example

of wage theft and my office will take immediate action against a business who steals money from its workers."

An investigation by the California Department of Industrial Rela-

Continued on Page 12

## Study: California Tops List of Top 10 States to Work in HVACR

HVACR contractors looking for plentiful job opportunities, high salaries, available training and large numbers of service calls should head for California or Ohio, according to a list of top states to work in HVACR compiled by Emerson Climate Technologies.

One of the top challenges facing the HVACR industry is a shortage of qualified technicians. Emerson created its list after talking to contractors and HVACR

students and instructors about what motivates young people to pursue careers in the industry. According to the Air-Conditioning, Heating, and Refrigeration Institute (AHRI), an estimated additional 57,000 skilled workers are needed each year to work in the HVACR industry.

"I have talked to contractors from all 50 states during my career at Emerson and I have found a lot of pride in the work, whether they're keeping up with the demand for residential air conditioning in the southwest or

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However, another study says qualified hires hard to find. See Page 8 for full article.



## Q&A with Bob Helbing, President of IHACI

Bob Helbing

HVAC contractors in Southern California. Over the years, Air-Tro has won multiple accolades, including ACCA's 2011 Contractor of the Year award and *Los Angeles Times* 2012 Best of California Readers' Choice award.

Recently, Helbing was nominated as president of the Institute of Heating and Air Conditioning Industries, Inc., a non-profit trade association of contractors, manufacturers, distributors, utility firms, and related businesses actively engaged in the HVAC/R/

SM industry. *Indoor Comfort News* recently sat down with Helbing to discuss his thoughts on the critical issues facing the HVAC industry and what his goals are as president of IHACI.

ICN – Please discuss your background.

BH – I'm a third-generation engineer, with a degree in

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Founded in 1928, an innovative nursing home in the Troy, New York area saves approximately \$23K annually with the help of energy recovery ventilation.

**Troubleshooting 23**  
This month's troubleshooting situation features a 15-year-old gas furnace that may be emitting carbon monoxide into the living space.

**Legal Lines 24**  
A closer look at attorneys fees in stop payment notice actions.

## IHACI 2013 Training Classes

Keep your skills up-to-date by enrolling now! See Pages 28-29 for more details.



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INDOOR COMFORT NEWS

## California Labor Commissioner Orders HVAC Company to Pay Nearly \$1M for Wage Violations

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tions' Division of Labor Standards Enforcement (DLSE), also known as the Labor Commissioner's office, uncovered evidence which established that the Los Angeles-based company, Ace Cooling & Heating Corporation, willfully violated the law by failing to pay proper prevailing wages on a public works project at El Camino Community College. Ace intentionally underpaid its workers between \$39 and \$46 per hour.

El Camino Community College hired a Los Angeles-based general contractor, Mackone Development

Inc., who in turn contracted with Ace to perform the heating and air work for this project. The Labor Commissioner also served a civil wage and penalty assessment against Mackone.

"Prime contractors are jointly and severally liable for their subcontractors who fail to follow California's labor law," continued Labor Commissioner Su. "It is our practice to investigate all parties responsible for labor law violations to put the proper incentive on decision-makers in construction projects to deal only with honest, law-abiding contractors."

Mike Carson, vice president, Kahn Air Conditioning, Incorporated, and past president of The Institute of Heating and Air Conditioning Industries, Inc. (IHACI), praised the commissioner's decision.

"I am happy to see the size of this fine in light of the fact that violators typically think the risk of non-compliance is worth paying a small fine," Carson said. "We fully support state agencies that catch scam artists who cheat the system by performing unpermitted work; ripping off unsuspecting consumers; paying employees cash under the table; hiring undocumented workers; and putting workers at

risk by not complying with safety regulations.

"Unfortunately, the mindset of perpetrators is 'catch me if you can, and by the way, you won't catch me because it's like searching for a needle in the haystack.' By publicizing this type of a catch, the message is being sent that enforcement is and will be stepped up and cheating will have consequences," Carson added.

"The bottom line – until these violators are caught and taken to justice, the playing field remains un-level because too many contractors aren't playing by the rules."

The California Department

of Industrial Relations' Division of Labor Standards Enforcement (Labor Commissioner's Office) adjudicates wage claims, investigates discrimination and public works complaints, and enforces state labor law and Industrial Welfare Commission wage orders. Information on the functions of the California Labor Commissioner is available on the DIR website as well as on Facebook and Twitter.

Employees with work-related questions or complaints may call the California Workers' Information Hotline at (866) 924-9757 for recorded information on a variety of work related topics.

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## Study: California Tops List of Top 10 States to Work in HVACR

Continued from Page 1

working to keep food safe in northeast population centers," said Bob Labbett, vice president, marketing, distribution services, Emerson Climate Technologies. "This list is an interesting way to draw attention to the important issue facing our industry – recruiting talented people from across the country to take the place of an aging workforce."

Emerson's top 10 ranking draws on HVACR salary and employment data from the U.S. Department of Labor; trade school locations recognized by the Partnership for Air-Conditioning, Heating, Refrigeration Accreditation (PAHRA); heating and cooling degree days calculated at DegreeDays.net; residential home values from the U.S. Census, and certified contractors by state from North American Technician Excellence (NATE). Emerson also draws upon its own data to look at wholesaler locations and commercial service volumes from its ProAct™ Service Center.

Emerson's Top 10 states to work in HVACR are:

1. California

2. Ohio
3. Florida
4. Texas
5. Illinois
6. New York
7. Pennsylvania
8. New Jersey
9. North Carolina
10. Georgia

Characteristics of the top states include attractive salaries, training, and sunny days:

#1 - California tops the list with more than 2,000 NATE certified technicians, many cooling degree days to drive air conditioning and refrigeration demand, high employment (more than 16,000 HVACR techs, according to the U.S. Dept. of Labor) and some of the highest wages in the country.

#2 - Ohio comes in second with fewer sunny days but many more opportunities for training, with the most accredited HVACR schools in the country. The state is also in the Top 10 in the country for number of wholesaler locations.

#3 - Florida also offers many HVACR employment opportuni-

ties but much lower wages than California. The state boasts a high number of cooling degree days but was edged out by Ohio's better training environment.

#4 - Texas ranks similar to Florida in many areas; both are in the Top 10 states for residential air conditioning sales. However, Texas does not have as much commercial service volume, according to Emerson.

#5 - Illinois does not employ as many techs, although they are paid better than techs in the three states above. The state offers more wholesaler locations than Ohio and more commercial business than Texas.

In rounding out the Top 10, the next states fall behind in employment, training schools, and cooling degree days, while offering high numbers of certified technicians, large numbers of wholesaler locations, and valuable commercial service opportunities.

For further information about the Top 10 states to work in HVACR, visit Emerson's Climate Conversations blog at <http://emersonclimateconversations.com>.

## Interview with IHACI President Bob Helbing

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Aeronautical Engineering from the California Institute of Technology. My goal as a boy was to build spaceships, and I kind of got close. My first job out of college involved working on the Trident submarine ballistic missile, and later I worked on

the Minuteman, MX and Small Missile programs. My wife teases me, calling me a rocket scientist. However, about six years after I graduated, the Berlin Wall came down. A good thing of course, but it did mean we suddenly needed a lot fewer rocket scientists. It was time for me to change careers.

**ICN** – How did you get started in the HVAC industry?

**BH** – In addition to being a

third-generation engineer, it turns out I'm a fourth-generation contractor. My dad started Air-Tro Heating & Air Conditioning when I was seven years old, so my first experience in the HVAC industry was sweeping out the sheet metal shop on Saturdays to earn my allowance. I worked in the family business off and on before college graduation. When I left aerospace, my dad asked me to

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# Cover Story

## Bob Helbing

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come back. I worked for him for five years, and he only fired me once. When he retired, I took over as president.

**ICN** – What are your favorite aspects of being in this industry?

**BH** – The challenges, the variety and the people.

The challenges include the fact that no two buildings are the same, so each HVAC system needs some thought put in before it's installed. We're not like manufacturers, where every step of production can be plotted, optimized and perfected. Instead, each new project presents new challenges.

The variety flows from that. But it includes more. Just as every building is different, so is each building owner or occupant. Matching the right equipment or application to the needs of the consumer and the constraints imposed by the building means that every job walk and every sales presentation includes something new, novel or unexpected.

That brings us to the people. HVAC isn't the fashion industry. We're not an impulse or a prestige purchase. It's just not as much fun to spend money on a furnace as it is on a sports car or an overseas vacation. As a result, we have to work harder to build the value for the customer before the sale and harder to deliver the value after. That means you have to have the right people making the sale and the right people performing the work. They build the value for the customer and for your company.

**ICN** – What does it mean to you to be a member of IHACI?

**BH** – It means being an active, contributing member of a multibillion dollar industry. Our industry will only make progress if we work on it, and if we work on it together we are going to make much greater progress. IHACI works hard to meet the needs of those in the industry and works just as hard promoting the needs of the industry with other important stakeholders, such as regulators and utilities, to name a few. We are here to help our members improve their skills and businesses, while advocating on

their behalf in front of legislators, educators, etc.

**ICN** – What do you see as IHACI's most significant accomplishments?

**BH** – Our training programs have been a major success. The California Quality Installation, Maintenance and Service (CA QI/QM/QS) training series was designed to address those issues specifically related to the with California's market in mind. In addition, we offer NATE (North American Technician Excellence) training to give installers and service technicians every opportunity the chance to enhance their skill set. Annually each year, more than 12,000 students attend IHACI training. IHACI has dramatically increased its presence in Sacramento as well as on a

national level. In addition, IHACI has taken is taking an aggressive role in compliance and enforcement issues. We have heard our members and are doing everything possible to create a level playing field for C-20 contractors. Volunteer support and participation is at an all time high. We're making a difference.

**ICN** – Why do you believe IHACI membership is critical to California C-20 contractors?

**BH** – In 2004, the California Energy Commission focused heavily on the HVAC industry as the main source of peak energy. Its mission: "to transform HVAC to ensure its energy performance is optimal." California C-20 contractors must be part of this process. No doubt, HVAC, is a heavily regulated

industry and it's likely we'll see more, not fewer, regulations in the years to come. Unfortunately, too few C-20 contractors step up to the plate. The industry tends to be reactive opposed to proactive. IHACI members are proactive. We have seen differences, whether it be a regulation that has been modified and/or changed, to incorporate the reality of our business or shedding light on the challenges contractors face on a daily basis. We draw attention and address the "real life" challenges faced by C-20 contractors. So much of what's affecting the HVAC industry today is taking place in San Francisco or Sacramento. You've got to be at the table in order to facilitate change. You lose every fight you fail to show up for. Frankly, it's difficult for me to understand why a C-20

contractor would not be a member of IHACI.

**ICN** – As president of IHACI, what are your short-term, long-term goals?

**BH** – My short-term goal is to find the time to represent IHACI and its members, continue to run Air-Tro, and spend enough time with my family that my wife doesn't hire an attorney. Seriously, I want to work with the IHACI Board to find more opportunities for its members. IHACI members have demonstrated their commitment to the industry. They want to do what's right. I want to make certain that they are the beneficiaries of our efforts. Membership

Continued on Page 23



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# Troubleshooting

## A 15-Year-Old Furnace and a Follow-Up Carbon Monoxide Investigation

By Jim Johnson  
Contributing Editor

In this month's troubleshooting situation we have a customer who is concerned that the fifteen-year-old gas furnace in their home is emitting carbon monoxide into the living space. A previous check by another technician on the operation of the furnace (shown in **Figure One**), which is a natural draft unit, proved that the equipment was operating properly relative to combustion and temperature rise, and that the draft pressure in the vent was  $-.03$  WCI. The previous technician also noted

that this building was not equipped with a CO alarm.

When you arrive, you note that the building type is a manufactured home situated on a stem wall with a crawl space underneath. You also see evidence that a remodeling project has been recently completed. When you ask the customer for information, they tell you that they recently installed ceramic tile throughout the entire floor space. They also tell you that they watched the previous technician the entire time he was there and the furnace seemed to operate normally, but after he left, they again became concerned about the possibility of carbon monoxide.

When you open the solid door to the small confined-space furnace

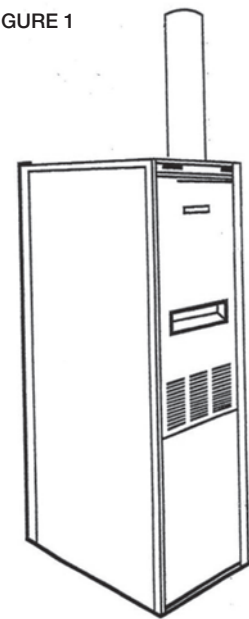
room and inspect the area, you find only the furnace itself, the furnace vent, and the supply duct plenum that leads to the overhead ductwork in the space above the ceiling. You also confirm that the return ductwork is situated in the crawl space under the floor, and routed directly into bottom of the furnace cabinet. The newly installed ceramic tile covers the entire floor of the furnace room.

Your troubleshooting question:  
*What did the previous technician miss in evaluating the operation of this equipment?*

If you have the correct answer to this month's troubleshooting prob-

lem, please submit it by email to Jim Johnson at [icntroubleshooting@techtrainassoc.com](mailto:icntroubleshooting@techtrainassoc.com) or by U.S. mail to Technical Training Associates, HC 70 Box 3172, Sahuarita, AZ 85629. In the subject line, please include "Troubleshooting Answer" and indicate which month the question you are responding to was published. Correct answers will be entered into a drawing and will be eligible to receive a copy of Jim Johnson's e-book "Preparing For NATE Certification Exams, Volume 1" and a capacitor tester. Test instruments are courtesy of SUPCO.

FIGURE 1



### Q & A with IHACI President Bob Helbing

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benefits that are "exclusive" to IHACI members will be key.

Long-term goals include a strong reputation for IHACI as the go-to-source of industry expertise; making certain that our voice is heard in every area affecting the HVAC industry; expanding our education and training efforts; and doing everything possible to level the playing field for C-20 contractors. Much work has already been done, but there is much more to do.

**ICN** – In your many years in this industry, what are you most proud of?

**BH** – In 2011/2012, Air-Tro was fortunate enough to be named Readers' Choice by both the *Los Angeles Times* and the *Pasadena Star-News*, as well as being honored as Commercial Contractor of the Year by ACCA. We also saw our business volume finally recover from the depths of the construction collapse caused by the Great Recession, and 2012 was our biggest year ever. We seem to have successfully endured the worst, and good times beckon.

I'm hoping the same good fortune applies to IHACI, its members, and the HVAC industry as a whole. We've weathered a big storm, but clear sailing seems ahead.

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